

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1-50. Cancelled.

51. (Currently Amended) A low-resistance resistor comprising:

a resistor element made of a metal sheet; and

a metal terminal disposed at both ends of said resistor element,

an entire surface of said terminal is coated with a metal having a melting point of 500° C or below,

said terminal has an electrical conductivity equal to or greater than that of said resistor element, and

said terminal has a groove of a width fittable to said resistor element, and [[]]

said resistor element and said terminal are electrically connected by inserting said resistor element into said groove with ~~a third~~said metal in between.

52. (Previously Presented) The low-resistance resistor as defined in Claim 51, wherein a thickness of said terminal is thicker than a total thickness of said resistor element.

53. (Previously Presented) The low-resistance resistor as defined in Claim 51, wherein at least a part of a surface of said resistor element is covered with an insulating layer.

54. (Previously Presented) The low-resistance resistor as defined in Claim 53, wherein said insulating layer completely covers said resistor element.

55. (Previously Presented) The low-resistance resistor as defined in Claim 53, wherein said insulating layer is made of at least one of epoxy resin, polyimide resin, and poly-carbodiimide resin.

56. (Currently Amended) A low-resistance resistor comprising:

a resistor element made of metal sheet;

an insulating substrate disposed at least on one of top and bottom faces of said resistor element;

a terminal having a groove of a width equivalent to a sum of a thickness of said resistor element and said insulating substrate,

an entire surface of said terminal is coated with a metal having a melting point of 500° C or below; and

~~a third~~said metal formed between said resistor element and said groove;

wherein said resistor element and said terminal are electrically connected through said ~~third~~ metal.

57. (Previously Presented) The low-resistance resistor as defined in Claim 56, wherein said insulating substrate is made of one of alumina, glass, glass impregnated epoxy resin substrates, and paper impregnated phenolic resin substrates.

58. (Previously Presented) The low-resistance resistor as defined in Claim 56,

wherein an insulating layer covers a part of a surface of said resistor element.

59. (Previously Presented) The low-resistance resistor as defined in Claim 56, wherein a thickness of said terminal is at least three times of a sum of a thickness of said resistor element and a thickness of said insulating substrate.

60. (Withdrawn) A low-resistance resistor comprising:

a resistor element made of metal sheet; and

a metal terminal disposed at both ends of said resistor element, said terminal being made of metal having greater electrical conductivity than that of said resistor element, and having an L shape section face;

wherein said resistor element and said terminal are electrically connected through a third metal.

61. (Withdrawn) The low-resistance resistor as defined in Claim 60, wherein at least a part of a surface of said resistor element is covered with an insulating layer.

62. (Withdrawn) A low-resistance resistor comprising:

a resistor element made of metal sheet:

an insulating sheet attached to at least one face of said resistor element; and

a metal terminal disposed at both ends of said resistor element, said terminal being made of metal having greater electrical conductivity than that of said resistor element, and having an L shape section face;

wherein said resistor element and said terminal are electrically connected through a third metal.

63. (Withdrawn) A resistor comprising:

a metal resistor element provided with a step between both ends by making a thickness of said both ends thicker than a central portion; and

a metal terminal disposed at both ends of said resistor element, said terminal having a one-side-open section face with an inner space broader than its opening, and being electrically connected to said step of said resistor element at least at said inner space of the opening.

64. (Withdrawn) A low-resistance resistor comprising:

a resistor element made of metal sheet;

an insulating substrate; and

at least two metal terminals formed in a way to electrically connect top and bottom faces of said insulating substrate;

wherein said resistor element and said metal terminals are electrically connected through a third metal.

65. (Withdrawn) The low-resistance resistor as defined in Claim 64, wherein at least a part of a surface of said resistor element is covered with an insulating layer.

66. (Withdrawn) The low-resistance resistor as defined in Claim 64, wherein said insulating substrate is made of one of alumina, glass, glass impregnated epoxy resin substrates, and paper impregnated phenolic resin substrates.

67. (Withdrawn) A low-resistance resistor comprising:

a resistor element made of metal sheet; and

four metal terminals, said terminals being disposed one each on top and bottom faces at both ends of said resistor element, and electrically connected to said resistor element through third metal.

68. (Withdrawn) The resistor as defined in Claim 67, wherein a width of said terminals are not less than a width of said resistor element.

69. (Withdrawn) The resistor element as defined in Claim 67, wherein said terminals disposed on top and bottom faces at both ends of said resistor element are electrically connected to each other.

70. (Withdrawn) A resistor comprising:

a metal resistor element having a notch near both ends; and

a metal terminal disposed at both ends of said resistor element, said terminal having a protrusion corresponding to said notch;

wherein said resistor element and said terminal are electrically connected at least through said protrusion and said notch.

71. (Withdrawn) A resistor comprising:

a metal resistor element having at least two through holes; and

a metal terminal having at least one protrusion with a same shape as said through holes;

wherein at least one protrusion of said terminal is inserted to at least one through hole of said resistor element, and at least one face of said terminal is electrically connected to said resistor element.

72. (Withdrawn) The low-resistance resistor as defined in Claim 67, wherein at least a part of a surface of said resistor element is covered with an insulating layer.

73. (Withdrawn) The low-resistance resistor as defined in Claim 70, wherein at least a part of a surface of said resistor element is covered with an insulating layer.

74. (Withdrawn) The low-resistance resistor as defined in Claim 71, wherein at least a part of a surface of said resistor element is covered with an insulating layer.

75. (Currently Amended) A method for manufacturing a low-resistance resistor comprising:

forming a resistor element made of a metal sheet, said resistor element having a shape adjusted to obtain a predetermined resistance;

forming a metal terminal having a groove;

coating an entire surface of said metal terminal with a metal having a melting point of 500° or below;

fitting said terminal to both ends of said resistor element; and

electrically connecting said resistor element and said terminal;

wherein a third metal layer is formed on at least one of

a) a connecting portion of said resistor element, and

b) connecting portion of said terminal

before fitting said terminal to said resistor element.

76. (Previously Presented) The method for manufacturing a low-resistance resistor as defined in Claim 75, further comprising the step of forming an insulating layer except on said terminal after said step of electrical connection.

77. (Currently Amended) A method for manufacturing a resistor comprising:

forming a terminal made of a metal foil pattern with a predetermined shape on a part of top and bottom faces of an insulating substrate, said terminal being electrically connected to top, side, and bottom faces of said insulating substrate;

coating an entire surface of said terminal with a metal having a melting point of 500° C or below;

dividing said insulating substrate into a predetermined shape;

forming a metal resistor element, said resistor element having a shape adjusted to obtain a predetermined resistance;

electrically connecting said resistor element to the metal foil pattern on the top face of said insulating substrate.

78. (Withdrawn) A method for manufacturing a resistor comprising:

forming a metal resistor element, said resistor element being adjusted to obtain a predetermined resistance;

forming a block of metal terminal having at least one protrusion;

creating at least two through holes at a predetermined position of said resistor element;

inserting at least one of said protrusion into at least one of said through hole;

folding an open side of said terminal to hold said resistor in a thickness direction; and

electrically connecting said resistor element and said terminal.

79. (Previously Presented) The method for manufacturing a low-resistance resistor as defined in Claim 75, wherein said terminal is electrically connected to both ends of said resistor element by one of pressing, caulking, and cold forging, and then one of heating, thermal compression bonding, brazing, and ultrasonic welding.

80. (Previously Presented) The method for manufacturing a low-resistance resistor as defined in Claim 75, wherein said step of forming said third metal layer is implemented by one of plating and paste printing.

81. (Previously Presented) The method for manufacturing a resistor as defined Claim 75, wherein said step of electrically connecting said resistor element and terminal comprises :

coating said at least one of said resistor element and terminal with metal different from that used for forming said resistor element and said terminal;

connecting said resistor element and said terminal, after assembling coated resistor element and terminal, by one of brazing, pressing, and ultrasonic welding.

82. (Withdrawn) A method for manufacturing a resistor comprising:

forming a metal resistor element, said resistor element having a shape adjusted to obtain a predetermined resistance;

forming one of a notch and groove at a predetermined position of said resistor element;

forming a block of metal terminal with a predetermined shape, said terminal having at least one protrusion;

sandwiching said resistor element with said terminal, and inserting said protrusion into one of said notch and groove; and

electrically connecting said resistor element and said terminal.

83. (Withdrawn) A method for manufacturing a resistor comprising:

forming a resistor element made of metal sheet, said resistor element having a shape adjusted to obtain a predetermined resistance; and having one of at least two through holes, notches, grooves, and cavities;

forming a terminal made of metal strip, said terminal being one of sandwiched and folded on top, bottom, and side faces at both ends of said resistor element, and a part of metal being inserted and fixed to one of said through holes, notches, grooves, and cavities of said resistor element; and



electrically connecting said resistor element and said terminal.

84. (Previously Presented) The method for manufacturing a low-resistance resistor as defined in Claim 76, wherein a step of trimming resistance is added before said step of forming said insulating layer.

85. (Previously Presented) The low-resistance resistor as defined in Claim 52, wherein a thickness of said terminal is at least three times of a total thickness of said resistor element.

86. (Previously Presented) The method for manufacturing a low-resistance resistor as defined in Claim 76, wherein said terminal is electrically connected to both ends of said resistor element by one of pressing, caulking, and cold forging, and then one of heating, thermal compression bonding, brazing, and ultrasonic welding.

87. (Previously Presented) The method for manufacturing a low-resistance resistor as defined in Claim 77, wherein said terminal is electrically connected to both ends of said resistor element by one of pressing, caulking, and cold forging, and then one of heating, thermal compression bonding, brazing, and ultrasonic welding.

88. (Withdrawn) The method for manufacturing a low-resistance resistor as defined in Claim 78, wherein said terminal is electrically connected to both ends of said resistor element by one of pressing, caulking, and cold forging, and then one of heating, thermal compression bonding, brazing, and ultrasonic welding.

89. (Previously Presented) The method for manufacturing a resistor as defined in Claim 76, wherein said step of electrically connecting said resistor element and terminal comprises :

coating said at least one of said resistor element and terminal with metal different from that used for forming said resistor element and said terminal;

connecting said resistor element and said terminal, after assembling coated resistor element and terminal, by one of brazing, pressing, and ultrasonic welding.

90. (Previously Presented) The method for manufacturing a resistor as defined in Claim 77, wherein said step of electrically connecting said resistor element and terminal comprises :

coating said at least one of said resistor element and terminal with metal different from that used for forming said resistor element and said terminal;

connecting said resistor element and said terminal, after assembling coated resistor element and terminal, by one of brazing, pressing, and ultrasonic welding.

91. (Withdrawn) The method for manufacturing a resistor as defined in Claim 78, wherein said step of electrically connecting said resistor element and terminal comprises :

coating said at least one of said resistor element and terminal with metal different from that used for forming said resistor element and said terminal;

connecting said resistor element and said terminal, after assembling coated resistor element and terminal, by one of brazing, pressing, and ultrasonic welding.

92. (New) The method of manufacturing a low resistance resistor as defined in claim 75, wherein said coating is performed by plating.

93. (New) The method of manufacturing a low resistance resistor as defined in claim 77, wherein said coating is performed by plating.